

NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	Original issue	S.J.H.	8-99
2	Bld Item No.	S.J.H.	8-99
3	Guard-rail post spacing, General update	S.J.H.	6-09
4	*	*	



GENERAL NOTES:

Construction Specification - Arizona Department of
Transportation Standard Specifications for Road
and Bridge Construction, latest Edition.

Design Specifications - AASHTO LRFD Bridge Design Specifications, 4th Edition 2007.

This barrier has been successfully crash tested and is structurally evaluated as meeting the requirements of NCHRP Report 350 Test Level 4.

All Concrete shall be Class "S" ($f'_c = 4500$ psi).

Reinforcing steel shall conform to ASTM Specification A615. All reinforcing shall be furnished as Grade 60. All reinforcing shall be epoxy coated at locations above EL.4000 ft.

All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

All reinforcing steel shall have 1½ inch clear cover unless noted otherwise.

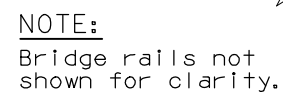
Structural tubing (TS) shall be ASTM A500 Grade B.
Anchor plates, posts and other structural steel
shall conform to ASTM A36 unless noted otherwise.

All anchor bolts, studs, nuts and washers shall be ASTM A325 and shall be galvanized in accordance with the requirements of ASTM A153.

Labor and materials for steel railing assembly, curb, end block, anchorage bars and hardware are included in the pay item (Item No. 6011134).

Dimensions shall not be scaled from drawings.

Item No. 6011134 TWO TUBE BRIDGE RAIL
Measure: Linear Foot



Approach Slab
Guard Angle

Thrie Beam Guardrail
Transition System,
See SD1.03

* Dimension shown is for a typical 15'-0" long approach slab. Spacing may be adjusted up to a maximum of 9'-6" as needed. Additional posts shall be added for dimensions greater than 9'-6".

* * Project bridge plans shall show the length of bridge rail and the layout of posts, rails, joint locations, approach slabs, guard rail transitions and elevations.

RAILING NOTES:

All posts shall be vertical. Panel lengths of rail shall be continuous and attached to a minimum of two posts. Rail splices shall be located at expansion joints and shall be constructed as detailed.

All exposed steel edges shall be ground smooth. All structural steel rail assembly components shall be galvanized after fabrication in accordance with ASTM A123. All galvanizing that has been damaged in handling, transportation or welding shall be repaired by the application of a paste compound of an approved zinc powder and flux.

All welding shall conform to the requirements of the American Welding Society, ANSI/AASHTO/AWS D1.5 Bridge Welding Code, latest Edition.

DESIGN APPROVED <i>Shafi U. Hasan</i>		ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION BRIDGE GROUP STRUCTURE DETAIL	
APPROVED FOR DISTRIBUTION <i>Tean A. Nehme</i>		TWO TUBE BRIDGE RAIL	
ROUTE	PROJECT NO.	FA NO.	DRAWING NO. SD 1.06(1 of 4)
LOCATION			SHEET NO. OF